



Subject: **INFORMATION:** Highway Traffic Noise

Date: ~~867~~ 1 4 1998

From: Chief, Environmental Analysis Division

Reply to: HEP-40
Attn. of:

To: Division Administrators

In March, the Federal Highway Administration released the FHWA Traffic Noise Model, Version 1.0 (FHWA TNM). This new state-of-the-art highway traffic noise prediction model is a Windows-based program that has increased capabilities and scientifically-founded, state-of-the-art acoustic algorithms. With valuable assistance from the Volpe National Transportation Systems Center (VNTSC), TNM Look-Up Tables have been developed to provide highway traffic noise analysts with a screening tool to be used in simple applications of the FHWA TNM. The TNM Look-Up Tables are accompanied by a complementary DOS program entitled TNMLOOK, written in Microsoft Fortran Version 5.0 for the PC-compatible computer.

The TNM Look-Up Tables provide a reference of pre-calculated FHWA TNM results for simple highway geometries. The calculations are for an infinitely-long, straight roadway over flat ground, with a receiver set at a height of 1.5 m above the ground. If desired, an infinitely-long straight barrier may also be included in the calculations.

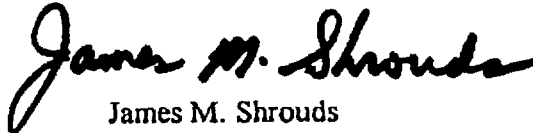
Specifically, the tables contain results for the following parameters:

- Five vehicle types (automobiles, medium trucks, heavy trucks, buses, and motorcycles) at speeds of 0 to 130 kilometers per hour (km/h) in 10 km/h increments;
- Sound level propagation over acoustically hard or soft terrain;
- A single wall barrier (if desired) at a height of between 2 and 10 m, located at a distance of either 10 or 30 m from the centerline of the roadway; and
- Receivers at distances from 10 to 300 m in 10 m increments from the centerline of the roadway.

The user has a choice of using either the TNM Look-Up Tables or TNMLOOK to determine sound levels associated with a particular geometry.

The tables should be useful to all individuals involved with the analysis of highway traffic noise. A copy of the tables and a diskette containing TNMLOOK are attached for your information and use. Along with a copy of this memorandum, copies of both the tables and the diskette are being distributed directly by the VNTSC to all State Departments of Transportation. Additional copies may be obtained from the VNTSC. The tables and diskette may also be reproduced without restriction.

If you have any questions concerning the tables, you may contact Bob Armstrong or Steve Ronning at (202) 366-2073 or (202) 366-2078, respectively.

A handwritten signature in black ink, reading "James M. Shrouds". The signature is written in a cursive, flowing style. Below the signature, the name "James M. Shrouds" is printed in a standard serif font.

2 Attachments

cc: Regional Administrators
Federal Lands Highway Program Administrator